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TITLE OF THE INVENTION

## ATOMIC ABSORPTION SPECTROPHOTOMETER

## BACKGROUND OF THE INVENTION

The present invention relates to an atomic absorption spectrophotometer, and more particularly to a small-sized atomic absorption spectrophotometer comprising either a graphite furnace analyzing section or a flame analyzing section, or comprising both of them.

Atomic absorption spectrophotometers are generally used for the quantitative analysis of metal including heavy metals, it is well-known that the spectrophotometers is used for the following analysis methods. In the flame analyzing method, a sample including metal to be analyzed is sprayed into combustion flame such as acetylene flame to atomize the sample. A luminous flux having a wavelength which is absorbed by the metal to be analyzed is passed through the flame. Detecting attenuation of the luminous flux, the quantity of the metal included in the sample is detected. In the graphite furnace analyzing method, a sample is dropped into a heated graphite pipe to vaporize and atomize the sample. And then, same as above-mentioned method, a luminous flux having a wavelength which is absorbed by the metal to be analyzed is passed through the graphite pipe. Detecting attenuation of the luminous flux, the quantity of the metal included in the sample is detected.

Concerning the kinds of metals which can be analyzed, there is a different territory between the flame analyzing method and the graphite furnace analyzing method. And lengths of time required for the analyses also differ between both of the methods. Therefore, generally, the atomic absorption spectrophotometers are so devised that analyses by both of the methods are possible.